

Application No.: 10/626,237

Docket No.: JCLA11628

**REMARKS****Present Status of the Application**

The Office Action rejected all pending claims 1-8. Specifically, claims 1-6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lauterbach et al. (US 4341816, hereinafter as Lauterbach) in view of Chiang et al. (US 6248401, Chiang), and claims 7-8 rejected under 35 U.S.C. 103(a) as being unpatentable over Lauterbach in view of Chiang and Keller et al. (US 4476151, Keller).

Applicants respectfully traverse the rejections and submit the following remarks in response. Reconsideration of claims 1-8 is respectfully requested.

**Discussion of Rejections to Claims 1-8 under 35 USC 103(a)**

Claims 1-6 were rejected as being unpatentable over Lauterbach in view of Chiang, and claims 7-8 rejected as being unpatentable over Lauterbach in view of Chiang and Keller.

However, Applicants respectfully submit that it is non-obvious for one of ordinary skill to combine Lauterbach with Chiang to obtain the feature of independent claim 1, *at least one of the target material and the backing plate being coated with a coupling agent of a (semi-)metal oxide that has a hydrolyzable group*, or that of independent claim 4, *coating a coupling agent of a (semi-)metal oxide having a hydrolyzable group on a bonding surface of at least one of the target material and the backing plate*, for at least the reasons set forth.

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As stated in §706.02(j) of the MPEP, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

Applicants respectfully submit that at least the first and second basic criteria mentioned above are not met for the above feature of claim 1 or 4 so that a *prima facie* case of obviousness cannot be established for claim 1 or 4. The explanations are given below.

*First*, there is no suggestion or motivation to modify Lauterbach with Chiang's bonding agent to obtain the above feature of claim 1 or 4 for at least the following reasons:

1. It is a generally available knowledge that target fabrication (Lauterbach) and PCB fabrication (Chiang) are entirely different fields, while Lauterbach never mentions or implies that its applications cover PCB fabrication, and Chiang never mentions or implies that its applications cover target fabrication.
2. From the viewpoint of Lauterbach's target fabrication, it is quite unnatural for one of ordinary skill in the art to select a bonding agent from an entirely different field like PCB fabrication (Chiang) but not from certain close fields among numerous fields

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concerning bonding materials, especially when the bonding agent is for bonding different types of materials. As mentioned before, the invention of Lauterbach is for bonding two inorganic materials, while Chiang is for bonding an organic material (PCB substrate) with an inorganic material (Cu foil).

*Second*, there is no reasonable expectation of success for the combination of Lauterbach and Chiang for at least the following reason. Because the interface properties between an inorganic material and an organic one (Chiang) are so different from those between two inorganic materials (Lauterbach) and interface properties greatly affect the adhesion effect, one of ordinary skill in the art would have no idea about the effect of applying Chiang's coupling agent to bond two inorganic materials based on Chiang's experience and other prior art.

Since the above two basic criteria are not met, a *prima facie* case of obviousness cannot be established for claim 1 or 4 according to §706.02(j) of the MPEP.

Moreover, a coupling agent having a hydrolyzable group like those used in Chiang was merely used to bond an *inorganic* material with an *organic* material in the prior art. However, this invention uses such a coupling agent in a quite different way, i.e., uses the coupling agent to bond two *inorganic* materials, but still makes good adhesion effect. This important feature indicates that this invention also makes an unpredictable effect as a basis for non-obviousness.

For at least the above reasons, Applicants respectfully submit that independent claims 1 and 4 patently define over the prior art.

For at least the same reasons mentioned above, Applicants respectfully submit that claims

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2-3 and 5-6 dependent from claims 1 and 4 also patently define over the prior art.

Furthermore, it is also noted that Keller fails to disclose the above feature of claim 1 or 4 or to teach or suggest a combination of Lauterbach's target structure and Chiang's coupling agent. Keller does not even mention a coupling agent having a hydrolyzable group.

For at least the above reasons, Applicants respectfully submit that claims 7 and 8 respectively dependent from claims 1 and 4 also patently define over the prior art.

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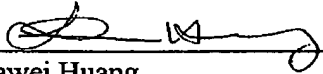
**CONCLUSION**

For at least the foregoing reasons, it is believed that the pending claims 1-8 are all in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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